

REMARKS

Claims 1-21 are pending in the present application. Reconsideration of this application, in view of the following remarks, is respectfully requested.

Examiner Interview

An interview was conducted with the Examiner in charge of the above-identified application on June 9, 2004. Applicants appreciate the courtesy shown by the Examiner during the interview. In the interview with the Examiner, the Mankin et al. and Wright et al. references were discussed. It was explained to the Examiner that the Mankin et al. reference does not disclose anything being displayed on a computer and Wright et al. fails to disclose any modification of a network. In view of this, the combination of the Mankin et al. and Wright et al. references fail to render obvious the presently claimed invention. This will be further discussed below with regard to the Examiner's rejections in view of the prior art.

Rejection Under 35 U.S.C. § 103

Claims 1-5, 7, 9-16, 18, 20 and 21 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Mankin et al., U.S. Patent No. 5,625,567 in view of Wright et al., U.S. Patent No. 5,051,898. Claims 6 and 17 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Mankin et al. and Wright et al., and further in view of Cariffe et al., U.S.

Patent No. 6,201,548. Claims 8 and 19 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Mankin et al. and Wright et al., and further in view of Hernandez et al., U.S. Patent No. 4,686,522. These rejections are respectfully traversed.

The present invention is directed to a method for creating a logical network by inserting a plurality of objects into a working area on a computer display. Independent claim 1 exemplifies the method of the present invention and recites a combination of steps including “displaying an existing network in said working area” and “displaying an extended network where an additional object of the type that is indicated in association with the selected subarea is inserted into the selected subarea.” In addition, independent claim 1 recites “receiving input from the user selecting one of said at least one subarea.”

Independent claim 12 exemplifies the apparatus of the present invention and recites a combination of elements including “means for displaying an existing network in said working area” and “means for displaying an extended network where an additional object of the type that is indicated in association with the selected subarea is inserted into the selected subarea.” In addition, independent claim 12 recites “means for receiving input from the user selecting one of said at least one subarea.”

The method and apparatus of the present invention is illustrated most clearly by Figs. 4a and 4b of the present invention. Specifically, an existing network 20 is illustrated in Fig. 4a, while an extended network 20' is illustrated in Fig. 4b. Applicants respectfully submit that the references relied on by the Examiner fail to teach or suggest the presently claimed invention.

In particular, referring to the Mankin et al. reference, this reference is related to the practical implementation of an already designed logical network. More specifically, Mankin et al. discloses a system for inserting terminal logic in an electronic circuit in an optimized way, by dividing the network in a plurality of partitions and defining terminals and connections ("pins" and "pads") between these partitions. The changes made to the logical network are made automatically, and are stored without further actions from the user (see, e.g. column 6, lines 54-58 of Mankin et al.). In addition, none of the changes made to the logical network are performed on a computer display with interaction from a user. These differences will be further described below.

Referring to the Wright et al. reference, this reference describes a system for creating a computer tool from a predefined tool template. According to one embodiment of Wright et al., the template has a plurality of graphical constituents, allowing the user to specify data and parameters of an otherwise static network (see Abstract). In other words, the network is not extended in Wright et al. the network is only run as a program. Applicants respectfully submit that the combination of Mankin et al. fails to render obvious the presently claimed invention.

As explained above, Mankin et al. is not related to the design of a logical network, but rather of a practical adjustment while implementing an already designed network. Moreover, Mankin et al. is not even related to graphical design at all. In view of this, Mankin et al. does not disclose "displaying an existing network," visually indicating said at least one subarea," or "displaying an extended network" as suggested by the Examiner on

pages 2-3 of the Examiner's Office Action and as recited in the independent claims of the present invention and. The figures referred to by the Examiner (Figures 1, 13 and 14) do not relate to a graphical representation on a display, but are only schematic block diagrams illustrating the circuits for the purposes of explaining the invention of Mankin et al. In the Examiner's Advisory Action, the Examiner indicates that Figures 11-27 are not just block diagrams; however, Figures 11-27 are also not displayed in the working area of a computer display. Figures 11-27 are schematic diagrams that illustrate the various stages of the circuit design. There is nothing in Mankin et al. to suggest that any of Figures 11-27 appear on a computer display.

In addition, as mentioned above, any adjustment of the circuit takes place when the design is stored to disc, indicating that there is no room for interaction with the user at all. In view of this, the differences between Mankin et al. and the presently claimed invention are significantly larger than indicated by the Examiner.

For example, referring to the Examiner's Office Action dated February 4, 2004, the Examiner states on page 2, paragraph 5 that Mankin et al. discloses "[d]isplaying an existing network in said working area (Figure 1)." In Figure 1 of Mankin et al.; however, Mankin et al. does not illustrate displaying an existing network, and certainly does not illustrate displaying an existing network in a working area of a computer display as in the presently claimed invention. Referring to column 1, lines 19-25 of Mankin et al., an electronic circuit 10 is disclosed as being illustrated in Figure 1. There is no indication that the circuit 10 is being displayed on a computer display as in the presently claimed

invention. Figure 1 merely illustrates the structure (hardware) of an electronic circuit. Accordingly, Mankin et al. fails to disclose the step of "displaying an existing network in said working area" as recited in independent claim 1 of the present invention and the recitation "means for displaying an existing network in said working area" as recited in independent claim 12 of the present invention.

In the Examiner's Office Action dated February 4, 2004, at page 2, paragraph 6, the Examiner explains that Mankin et al. discloses various steps and elements of independent claims 1 and 12 of the present invention. Applicants submit that the Examiner's own comments confirm that the Mankin et al. reference fails to disclose any of the steps or elements of the present invention.

At paragraph 6 of the Examiner's Office Action, the Examiner states "Mankin et al., hereinafter Mankin, discloses a method for creating a logical network by inserting a plurality of objects into a working area on a computer display." Applicants submit that the Examiner's understanding is incorrect. As mentioned above, the design of the logical network of Mankin et al. is entirely performed by the system without any interaction from the user. Furthermore, none of the steps performed by the system of Mankin et al. are being performed on a computer display as recited in the independent claims of the present invention. Accordingly, Mankin et al. is deficient for at least this reason.

In addition, the Examiner states that Mankin et al. discloses "[d]isplaying an existing network in said working area (Figure 1)." As mentioned above, Figure 1 is an electronic

circuit, not a computer display. Accordingly, Mankin et al. is deficient for this additional reason.

In addition, the Examiner asserts that Mankin et al. discloses identifying at least one subarea of the working area where an object is insertable into the network at column 8, line 65-column 9, line 2 and identifying what type of object can be inserted into the network in said subarea at column 9, lines 54-56. However, these portions of Mankin et al. state "in step 80 the system determines ..." and "the system, in step 84 (FIG. 9), adds ..." In view of this, it becomes clear that there is no interaction from the user in these portions of Mankin et al. The system itself merely determines how the network can be optimized without displaying on a computer display.

Since independent claim 1 recites "identifying at least one subarea of the working area where an object is insertable into said network" and "identifying what type of object that can be inserted into the network in said subarea," it becomes clear that the steps of "identifying" in the present invention are occurring on a computer display. This is due to the fact that "the subarea" is previously recited as being "of the working area," which is "on a computer display." Since Mankin et al. does not disclose the steps of "identifying" on a computer display, Mankin et al. is also deficient for this additional reason.

On page 3 of the Examiner's Office Action, the Examiner asserts that Mankin et al. visually indicates the at least one subarea in Figures 1 and 14 and displays an extended network in figure 13. However, as mentioned above, Figures 1, 13 and 14 do not appear

on a computer display. Accordingly, the Mankin et al. reference also fails to disclose the steps of “visually indicating” as recited in independent claim 1 of the present invention.

In view of the above, Applicants submit that the Mankin et al. reference fails to disclose the steps of “displaying,” “identifying” and “visually indicating” as recited in independent claim 1 of the present invention and the corresponding elements recited in independent claim 12 of the present invention.

With regard to the steps of “receiving input” and “displaying an extended network,” the Examiner recognizes that Mankin et al. fails to disclose these aspects of the present invention; however, the Examiner relies on Wright et al. in order to modify Mankin et al. to arrive at the presently claimed invention. Applicants submit that such a modification is not suggested by the references relied on by the Examiner.

First, there is absolutely no motivation to combine Mankin et al. with Wright et al., where a graphical interface permits a user to complete the contents of a predefined logical network. Mankin et al. and Wright et al. relate to two entirely different fields of technology, and address different problems. While Mankin et al. seeks to facilitate and improve the process of implementing a logical network as a physical circuit, Wright is concerned with the final stages of designing a (static) logical network.

Second, even if the Mankin et al. and Wright et al. references were combined, the combination would not arrive at the presently claimed invention. Nowhere in the Mankin et al. or Wright et al. references is there disclosed any interactive graphical design of a logical network as recited in the independent claims of the present invention. More specifically,

neither of the two documents describes a logical network of objects being displayed on a display and then extended with additional objects in accordance with instructions from a user as in the presently claimed invention.

As explained in the Amendment November 10, 2003, Wright et al. is quite different from the present invention, which rather provides a computer system designed to aid a designer of a logical network. In terms of Wright et al., this would correspond to the tool template itself, which defines the flow of the data in a computer tool. The process of designing a logical network is more dynamic than the process of "filling in the blanks" of a predefined tool template as described by Wright et al. As a consequence, the method of the present invention is entirely different from the teachings of Wright et al.

Referring to column 1, line 62 through column 2, line 6, it is clearly described in Wright et al. that the tool template is used to allow the user to control the program as it executes. The tool template allows a user to control execution of the program and to observe execution of the program. Referring to Fig. 2 of Wright et al., the tool template is illustrated. During execution of the program, the user is able to control the program in order to select data and parameters to invoke the program. In view of this, the tool template is not extended during the execution of the program, but only the contents of the tool template are modified.

In the present invention, however, both an existing network and an extended network are displayed. It would be necessary for Wright et al. to extend the tool template,

not just select a parameter for the tool template in order to meet these aspects of the present invention.

It should also be noted that a process that corresponds to the process described by Wright et al., e.g., including selecting parameter values and function characteristics, takes place *after* the logical network is completed. In the presently claimed invention; however, an existing network is extended to include an additional object inserted into a selected subarea.

In view this, neither Mankin et al. or Wright et al. disclose "displaying an extended network where an additional object of the type that is indicated in association with the selected subarea is inserted into the selected subarea" as recited in independent claims 1 and 12 of the present invention. Accordingly, the Examiner's rejection is improper and should be withdrawn.

With regard to dependent claims 2-11 and 13-21, Applicants respectfully submit that these claims are allowable due to their respective dependence upon allowable independent claims 1 and 12, as well as due to the additional recitations in these claims.

With regard to the Examiner's reliance on the Cariffe et al. reference and the Hernandez et al. reference, these references have been relied on to disclose graphically outlining a subarea and changing the appearance of a cursor, respectively. There is no disclosure in either of the Cariffe et al. or Hernandez et al. references of "displaying an extended network where an additional object of the type that is indicated in association with the selected subarea is inserted into the selected subarea" as recited in independent claims

1 and 12 of the present invention. Accordingly, these references fail to make up for the deficiencies of Mankin et al. and Wright et al.

In view of the above remarks, Applicants respectfully submit that claims 1-21 clearly define the present invention over the references relied on by the Examiner. Accordingly, reconsideration and withdrawal of the Examiner's rejections under 35 U.S.C. § 103 are respectfully requested.

CONCLUSION

All the stated grounds of rejection have been properly traversed and/or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently pending rejections and that they be withdrawn.

It is believed that a full and complete response has been made to the Office Action, and that as such, the Examiner is respectfully requested to send the application to Issue.


In the event there are any matters remaining in this application, the Examiner is invited to contact Paul C. Lewis, Registration No. 43,368 at (703) 205-8000 in the Washington, D.C. area.

Docket No. 0104-0345P
Appl. No. 09/856,972
Request for Reconsideration dated June 16, 2004
Reply to Advisory Action of May 18, 2004
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If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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